

Commonwealth of Kentucky
Division for Air Quality
EXECUTIVE SUMMARY

PROPOSED

Title V/PSD, Construction / Operating

Permit: V-05-070R3

EKPC - J.K Smith Generating Station

Winchester, KY 40391

April 9, 2010

Reviewed by Combustion Section

SOURCE ID: 21-049-00027

AGENCY INTEREST: 808

ACTIVITY: APE20080002

SOURCE DESCRIPTION:

J.K. Smith is located in Clark County, Kentucky, 21 miles southeast of the city of Lexington, 8 miles south-southeast of the city of Winchester, and one mile west of the community of Trapp, Kentucky. Clark County is classified as attainment or unclassifiable for all pollutants. The proposed project will constitute a major modification pursuant to the Title V operating permit provisions in 401 KAR 52:020, and the magnitude of the increased emissions are such that the provisions of 401 KAR 51:017, Prevention of significant deterioration of air quality (PSD), apply.

Existing emission units consist of seven simple cycle combustion turbines that serve as peaking units, and operate pursuant to an existing Title V renewal permit, V-05-070, issued on August 1, 2006 and revised on November 14, 2007 (V-05-070 R1). On February 19, 2008, EKPC filed an application to add two GE LMS 100 natural gas-fired combustion turbines at the J. K. Smith site. The combustion turbine application and the CFB application that was filed on April 3, 2008 are considered one project for PSD purposes, and the air modeling reflects the impact of both applications. However, because combustion turbines and coal-fired boilers are significantly different from both a technical and air impact perspective, the Division processed them as two separate permit revisions. On October 24, 2008, the final revised permit V-05-070 R2 was issued, incorporating the new combustion turbines. This permit revision (V-05-070 R3) involves only the CFB boilers and associated facilities (Emission Units 11-19).

PUBLIC AND AFFECTED STATE REVIEW:

On January 4, 2010 and January 13, 2010, the public notice on availability of the draft permit and supporting material for comments by persons affected by the plant was published in *The Winchester Sun* in Winchester, Kentucky. The public comment period expired 30 days from the date of publication. Additional comments were received on February 4, 2010 at a public hearing in Winchester, Kentucky. No other states are affected by this permit action.

Attachments B-E lists the comments received, the Division's response to each comment, and a detailed explanation of the changes made to the permit. EKPC submitted its response to public comments on February 25, 2010 and those responses are provided in Attachment F. Minor changes were made to the permit as a result of the comments received; however the Division has concluded that the proposed operation will comply with all air quality regulations and requirements. Therefore, the Division has made a final determination to issue a proposed permit. A final permit will be issued after the United States Environmental Protection Agency's (U.S. EPA) 45-day review.